

# Neuse River WWTP Expansion to 75 MGD – Phase 3



**Public Meeting  
January 22, 2013**



**HAZEN AND SAWYER**  
Environmental Engineers & Scientists

# Agenda

- **Background**
- **Interlocal Agreements**
- **Need and Purpose**
- **Alternatives**
- **Funding**
- **Impact on Sewer Rates**

# Background

## Neuse River Wastewater Treatment Plant

**Current Capacity:** 60 million gallons per day

**Current Flows:** 45 million gallons per day

**Future Capacity:** 75 million gallons per day

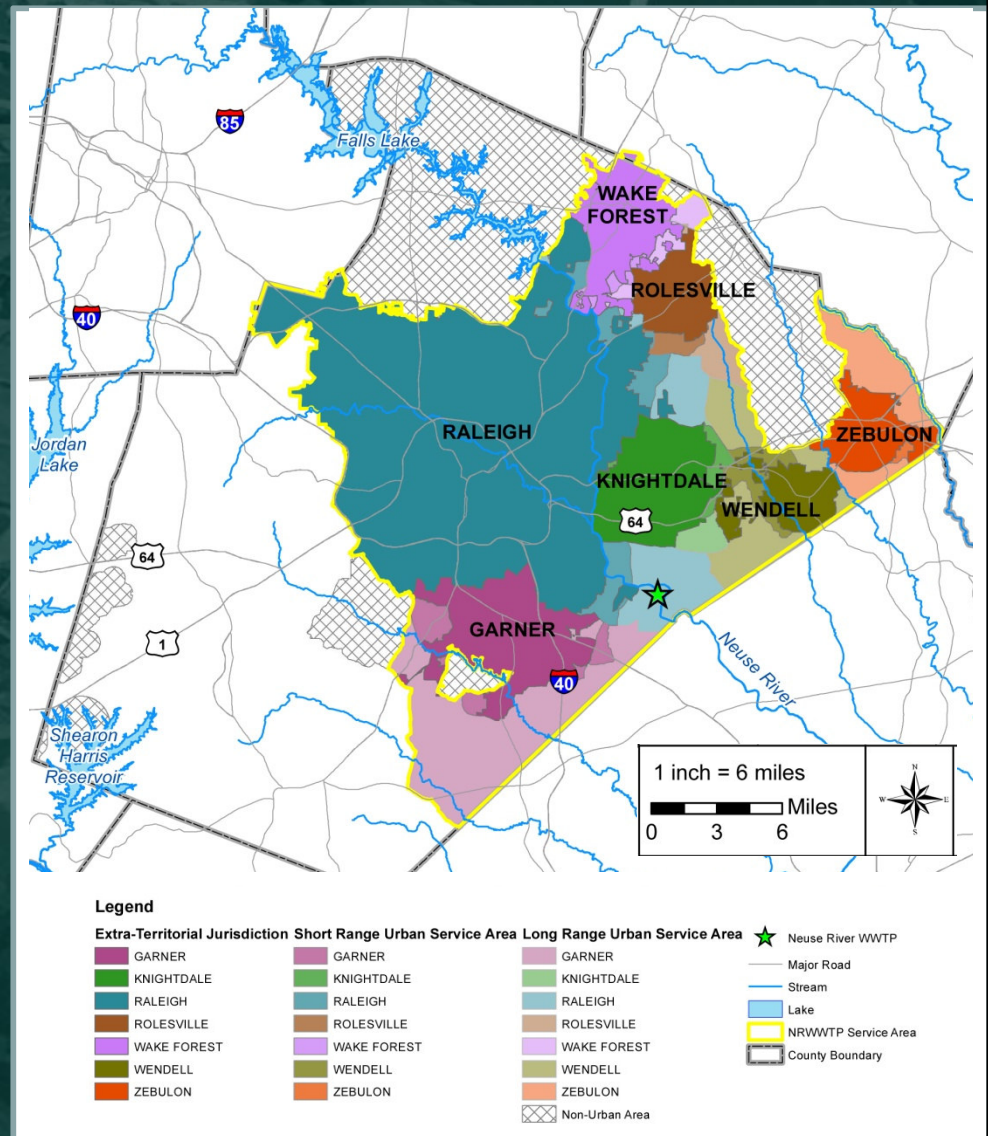




# Background

## Service Area

- City of Raleigh
- Rolesville
- Knightdale
- Wendell
- Zebulon
- Garner
- Wake Forest\*



# Interlocal Agreements

- **Town of Apex – 1 MG Contract**
- **Town of Clayton/Johnston County – 1 MG Contract**
- **Merged Communities**

# Need and Purpose

- **Increased population in existing service area**
    - 41.8% growth in metro area 2000 – 2010 (CNN, 2011)
  - **Service area expanded to serve new development**
- increased wastewater flows**



# Alternatives

- **Environmental Assessment (2006)**
  - **No Action Alternative**
    - Septic and private treatment facilities
  - **Combination Alternative**
    - Water conservation, wastewater reuse and growth management
  - **Additional treatment at satellite facilities**
  - **Expansion of Neuse River WWTP**

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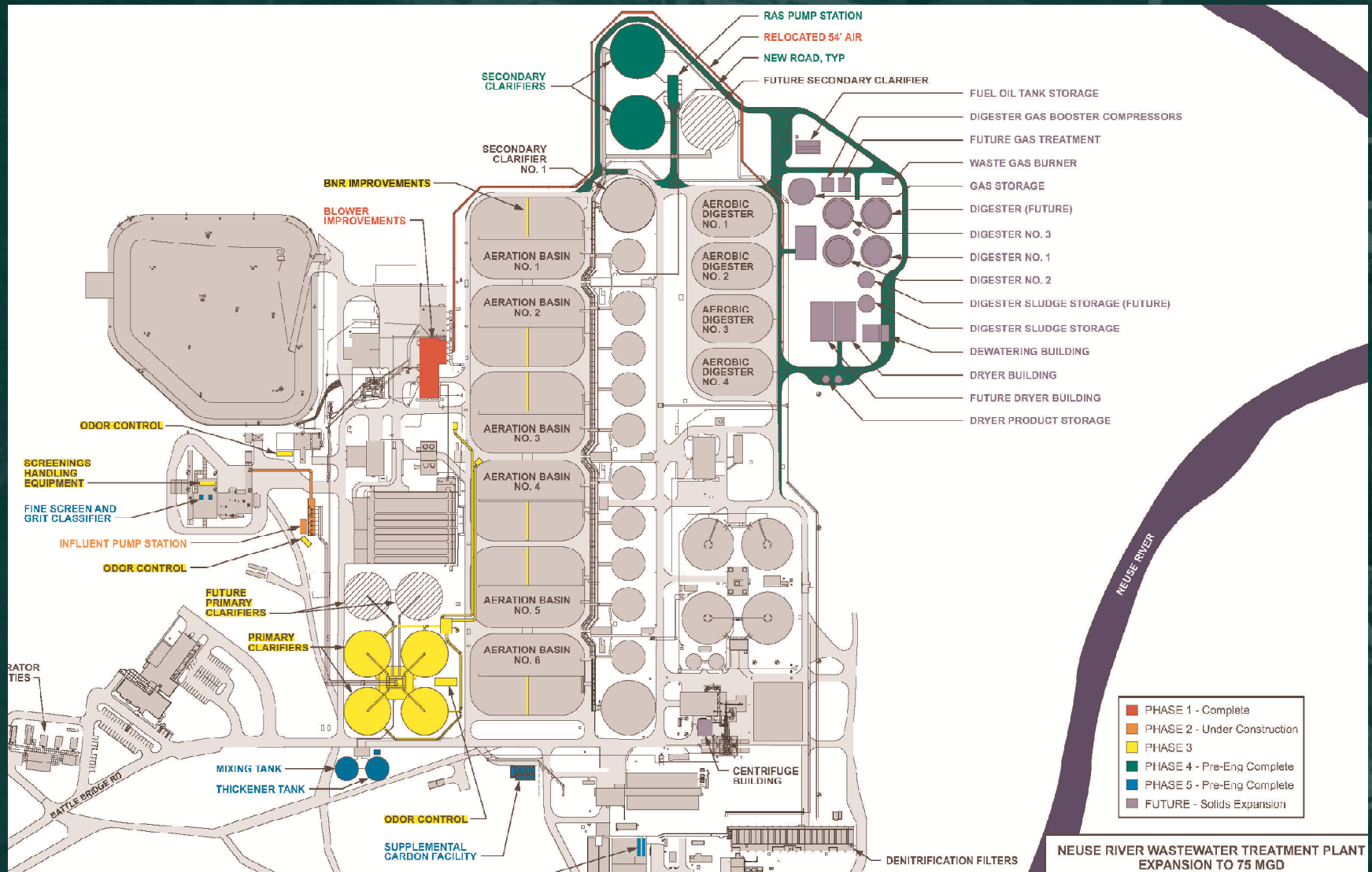
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    - **Expansion of Neuse River WWTP**
- **Finding of No Significant Impact**



# Expansion to 75 mgd



# Expansion to 75 mgd – Phase 3

- **Primary Clarifiers**
  - Four new 140-ft diameter circular primary clarifiers
  - Sludge and scum pump station
- **Biological Nutrient Removal Basin Improvements**
  - Optional 5-stage BNR operation
  - Dissolved Oxygen Control
- **Screenings Handling Equipment Replacement**
  - Wash, dewater and compact screenings removed from wastewater
- **Additional Influent Pumps**
  - 3 pumps not included in Phase 2 – Influent Pump Station Project
- **Odor Control**
  - Biofilters
  - Influent Pump Stations and new Primary Clarifiers

# Funding



Construction	\$24.7 M
Engineering / Administration / Contingency	\$ 4.2 M
<b>TOTAL</b>	<b>\$28.9 M</b>

**CWSRF Funds** **\$28.2 M**

**Balance – funded by City's sale of Revenue Bonds**



# Funding

## Clean Water State Revolving Fund (CWSRF)

- Established by Federal Clean Water Act (1987)
- Federal funds + 20% state match
- Loans provided at half the market rate (currently 2%)

*City of Raleigh will save over \$500,000 a year  
in interest payments on this project  
as a result of CWSRF Funding!*

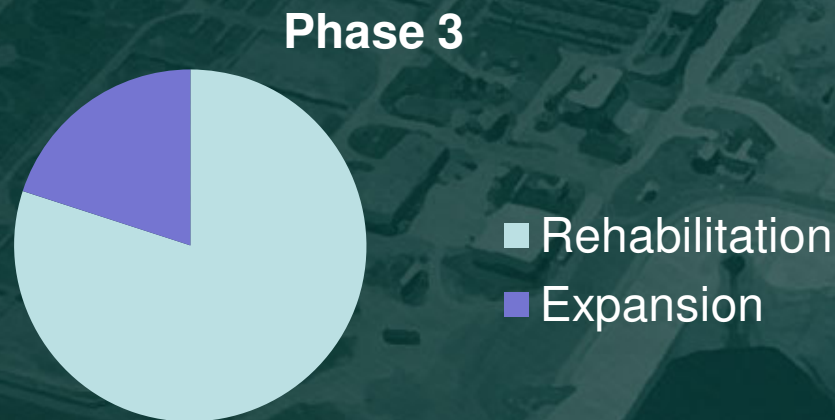
# Impact on Sewer Rates

## Example for Phase 3 – CWSRF Loan

- **Current Sewer Bill (for 5,000 gal)** **\$28.20**
- **New Sewer Bill (for 5,000 gal)** **\$28.94**
  - + 2.6% Increase**
  - + 74 cent increase per month for the average residential user**

# Impact on Sewer Rates

- **Rate Structure**
  - Development pays for growth/expansion
  - Existing customers pay for rehabilitation



- **FY 14-16: projected annual rate increases of 6-7% for funding the overall Capital Improvement Plan**



# Questions?

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